UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

MAY 11 2010

Mr. James Moore, P.E., Manager
Water Quality Assessment Section (MC-150)
Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, TX 78711-3087

Dear Mr. Moore:

The Environmental Protection Agency (EPA) has completed its technical review of site-specific copper criteria, which were submitted to EPA for review. The site-specific marine criteria apply to a portion of Cantrell Slough (unclassified water body in segment 0823 – Lake Lewisville). Cantrell Slough, an unclassified water body, is a tributary to classified segment 0823 – Lake Lewisville, which has a high aquatic life use. In accordance with §307.4(h)(3) of the 2000 *Texas Surface Water Quality Standards* (TX WQS), Cantrell Slough has a presumed limited aquatic life use. EPA guidance allows states to develop site-specific criteria for waters for which default water quality criteria may not be appropriate.

Under Texas Pollutant Discharge Elimination System (TPDES) Permit No. 14323-001, the Upper Trinity Regional Water District's facility is authorized to treat and discharge wastewater to Cantrell Slough, thence to Lake Lewisville of the Trinity River Basin. A water effects ratio (WER) study was performed using laboratory water and simulated downstream water (consisting of 100% effluent from outfall 001) to determine if site-specific water quality criteria would be more appropriate than the state-wide copper criteria.

Our review of the final WER study indicates that the statewide water quality criteria for copper may be adjusted to account for site-specific physical and chemical interactions which mitigate the toxicity of copper to aquatic organisms. The methodology used to determine the site-specific criteria is consistent with EPA's guidance titled *Streamlined Water-Effect Ratio Procedure for Discharges of Copper* (EPA 822-R-01-005) and with the previously-approved WER provision in §307.6(c)(9) of the TX WQS. From the study, final WERs of 6.43 for dissolved copper and 5.73 for total copper were calculated from the geometric mean of two individual WERs derived from toxicity tests conducted with a cladoceran (*Ceriodaphnia dubia*).

Based on our technical review of the final study, the 2000 TX WQS criteria for copper, the resulting (dissolved) WER of 6.43 and the default hardness value of 106 mg/l as $CaCO_3$ for segment 0823, EPA has determined that a site-specific acute water quality criterion of 125.2 µg/L and a chronic water quality criterion of 83 µg/L are approvable. However, in order for EPA to take a formal approval action under §303(c) of the Clean Water Act, fulfillment of the public participation requirements found at 40 CFR Part 25 for this site-specific water quality standards revision is necessary. In order to fulfill these requirements and to complete TCEQ's water quality standards submission, we request that TCEQ submit to EPA a copy of the public

notice for this site-specific water quality standards revision, along with any comments received during the public comment period (or documentation that no comments were received). The public participation process may be completed through the permit application process, as noted in §307.6(c)(9) of the TX WQS.

If you should have any questions, please call me at (214) 665-6644 or have your staff contact Diane Evans at (214) 665-6677.

Sincerely,

for Philip A. Crocker
Chief
Watershed Management Section (6WQ-EW)

cc: Michael Pfeil, TCEQ - Water Quality Assessment Section (MC-150)
Debbie Miller, TCEQ – Standards Group (MC-234)